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Contingency Basing and CBITEC Update

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TCM-MS



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Agenda



- Maneuver Support Center of Excellence
Role in Contingency Basing
- Overview of Contingency Basing Actions
- Contingency Basing Integration
Technology Evaluation Center Overview



MSCoE's Role in Contingency Basing



- TRADOC's Executive for Contingency Basing and Integrated Base Defense
- Integrate Materiel Requirements – Technology – Training
- DOTMLPF-P Analysis and integrate non-materiel solutions
- Installations and Expeditionary Camp Protection



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History



- Base Camp Concept Capability Based Assessment
- Four DA Approved DOTMLPF-P Integrated Capability Requirements (DICR)
- DA Approved Base Camp Initial Capability Document (ICD)
- Established Contingency Basing Team TCM-MS
- Consolidated Base Defense, Contingency Basing, Training, and Evaluation



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TCM-MS Contingency Basing Focus Areas



- Manage, coordinate, and integrate solutions to base camp and Integrated Base Defense (IBD) capability gaps
 - Coordinate base camp DOTMLPF-P Integrated Capabilities Recommendations (DICR): Strategic, Engineer, Sustainment, Management
 - Base Camp Materiel Requirements: Management, Utilities, and Facilities
 - Doctrine: Base Camps and Power Management
 - JCMS Designs for Base Camp Baseline: 50, 300, 1,000, and 5,000 size camps
 - Training: Draft Base Camp Training Strategy, Integrated Base Defense Academy, Base Camp Management Training
 - Integrated Base Defense Materiel Portfolio
- Represent TRADOC and end user in all base camp and integrated base defense forums
 - Community of Practice (HQ DA G4)
 - ASA(ALT) Contingency Basing Integration
 - Establishing a TRADOC IPT for CoE Coordination
- Operate a Contingency Basing Environment to Integrate, Evaluate, and Train Base Camp Capabilities
 - Contingency Basing Integration Technology Evaluation Center (CBITEC)
 - Base Defense Assessment Site
 - Integrated Base Defense Academy
 - Virtual Base Camps (Defense and Operations)
- Support research and Experimentation to solve base camp capability gaps
 - Sustaining and Logistics Basing Science and Technology –Demonstration
 - Protection Basing Science and Technology - Demonstration
 - Technology Supported Operational Assessment Requirements Assessment
 - Unified Challenge
 - On-Going Collaboration with Research Centers and Academia



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Base Camp Approved Requirements



- Base Camp Initial Capability Document (ICD) approved 3 Apr 13, CARDS 16155
- Operational Energy ICD approved 27 Mar 12, CARDS 16150
- Base Camp DOTMLPF-P Integrated Capability Requirements (DICR)
 - Management - approved 3 Jan 13, CARDS 06084
 - Engineer - approved 20 Jan 12, CARDS 06083
 - Sustainment - approved 20 Dec 12, CARDS 06085
 - Strategic - approved 25 Jun 13, CARDS 06089

- Over 30% of recommendations adopted
- Training Strategy to identify solutions
- Organization has challenges
- Base Camp Regulation Working Group



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Base Camp Capability Development



- Management Capability Development Document (CDD)
 - **Monitoring and Understanding Base Camp Systems' inputs and outputs** (e.g. power, water)
 - Synchronizing and Integrating Base Camp Operations
 - Managing Base Camp Operations and Sustainment Support
 - Providing Master Planning in any contingency location
- Facilities CDD
 - Modular buildings, indigenous buildings and building materials
 - **Efficiencies and Environmental Protection (insulation, coatings, HVAC, etc.)**
 - Protection from direct/indirect fires, IEDs etc. (add on technologies, i.e. panels)
 - CBRN protection, collective protection (coatings, over pressure, filters, HVAC, etc.)
- Utilities CDD
 - **Power distribution and Storage**
 - Alternative (non-fossil fuel) Power Sources
 - **Water Distribution and Re-Use**
 - Black Water Elimination
 - Solid Waste-to-Energy Conversion
- Operational Energy White Paper ICW SCoE
 - **Need for Power Distribution**
 - **Lack of Technical Training and Skills**
 - **Power Generation and Distribution Doctrine**



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***Contingency Basing Integration
Technology Evaluation Center
(CBITEC)***



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CBITEC Mission



Provide a venue to train personnel, assess capabilities, evaluate technologies, and integrate construction techniques, environmental programs, operational energy strategies, base defense capabilities, and systems related to **Contingency Basing** in an operational environment.





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CBITEC Focus Areas of Effort



Construction	Water, Waste, Energy, and Environmental	Operations	Protection
Projects: <ul style="list-style-type: none"> • Building Envelope Efficiency (8 B-Huts) • Passive Solar Evaluation (8 additional B-Huts) • Structural Insulated Panel Hut (SIP-Hut) • Joint Construction Management System • Indigenous materials • Improved SIP-HUT Design and materials Outcomes: <ul style="list-style-type: none"> • Reduction in construction materials • Gain efficiencies in building methods 	Projects: <ul style="list-style-type: none"> • Power Storage and Distribution • Deployable Metering & Monitoring System (DMMS) • Flow Battery • Black water treatment system • Gray water treatment system • Water Distribution Outcomes: <ul style="list-style-type: none"> • Reduce sustainment demands • Increase self-sufficiencies 	Projects: <ul style="list-style-type: none"> • Conduct training for Regional Support Group units • Develop TTPs for integration of new technologies Outcomes: <ul style="list-style-type: none"> • RSG's trained to manage large base camps • Guidelines for operating extra small – medium base camps 	Projects: <ul style="list-style-type: none"> • Entry control Operations • Base Defense Operations Center • Efficiencies of power for protection systems • Inform basing systems architecture for integration of protection technologies • Construction of protective technologies Outcomes: <ul style="list-style-type: none"> • Mission planning tool for sensor placement • Standardize base camp planning
<p>Train, Assess, Evaluate, and Integrate</p>			

Blue: On-going Projects
Black: Proposed Projects

- Cooperation with Academia
- B-Hut Contest



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CBITEC Assessments



- Low Cost B-Hut Efficiency Application
- Modular Efficient Hut Proof of Principle
- Metering and Monitoring System
- Deployable Power Storage



Last 12 Months, 13,000 Soldiers Trained at Camp



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Contingency Basing Integration Technology Evaluation Center (CBITEC)



- Gray Water - showers/Laundry
- Black Water – Latrines
- Waste – Dining Facilities
- Energy – Barracks
- Construction Designs
- Protection
- Operations

15 B-Huts
Efficiency
Assessment

Large Power
Assessment

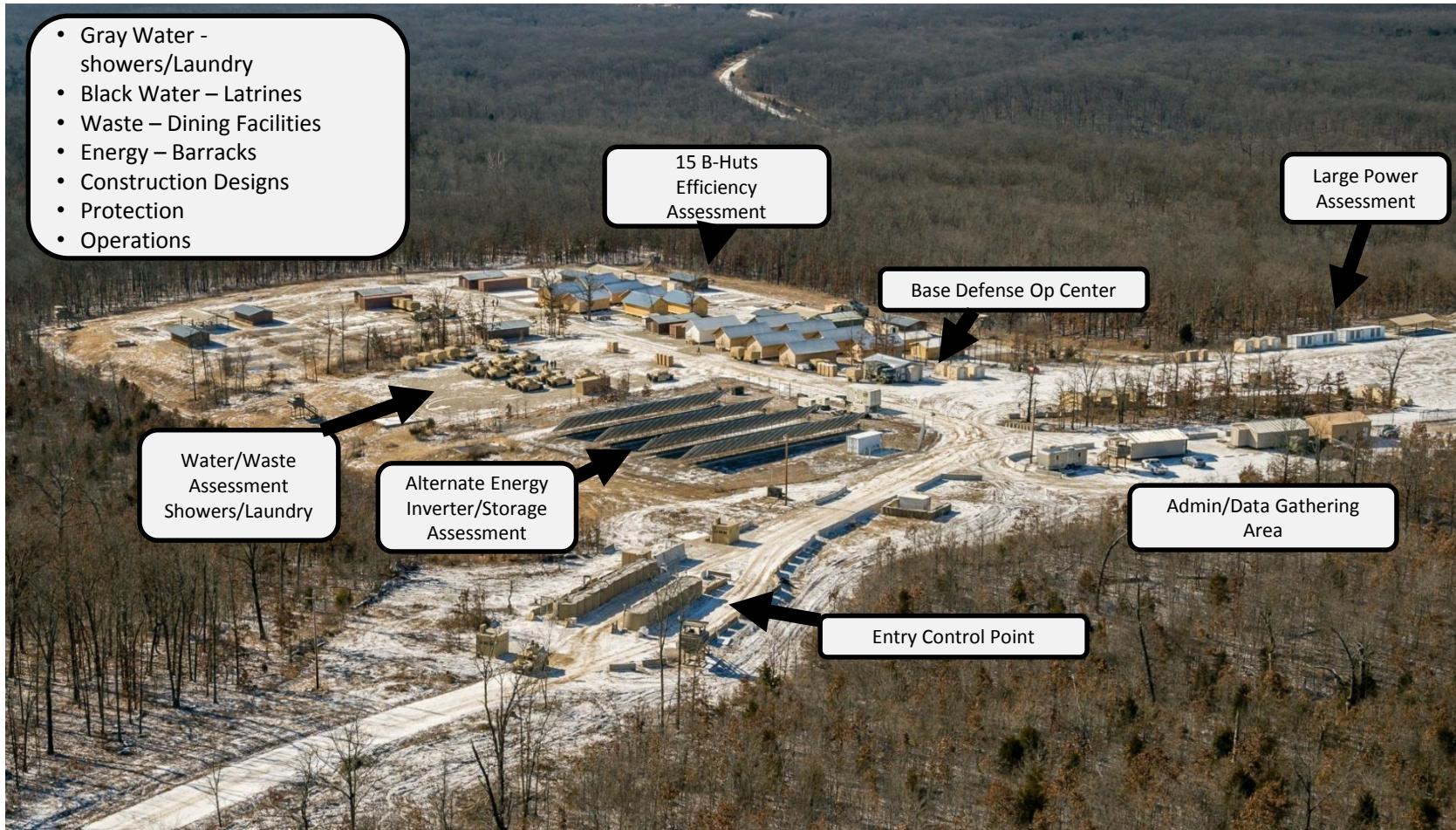
Base Defense Op Center

Water/Waste
Assessment
Showers/Laundry

Alternate Energy
Inverter/Storage
Assessment

Admin/Data Gathering
Area

Entry Control Point





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Base Defense Assessment Site



- 100 Pax Base Camp
- Entry Control
- Perimeter Security
- Guard Towers
- Surveillance
- BDOC



Planned Assessments

- Guard Tower Assessment
- Man Portable Vehicle Assessment
- Base Defense Assessment
- Wireless Integration
- Power Management



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Contingency Basing Operations



Base Defense Assessment
Site 100 Pax Base Camp
TA 190

- Protective Barriers
- Entry Control Point
- Base Surveillance Systems
- Base Security & Defense Systems
- Base Defense Operations Center
- Unattended Ground Sensors
- Non-Lethal Capabilities
- SPIDER

Virtual Base
Camp
(VFOB) and
Virtual
BDOC
(MSBL)

- Housing
- Kitchen / DFAC
- Showers
- Waste Water treatment
- Power Grids
- Entry Control Point
- Operations Center
- Base Defense



CBITEC
1,000 pax Base Camp TA 246



BETSS-C Academy

- RAID Tower
- Force Protection Sensors
- RDISS
- Battlefield Anti-Intrusion System
- Standard Ground Station (SGS)



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Upcoming Actions



- FY16 Unspecified Minor Military Construction Authority Proposal \$2.7M for Utilities
- Training schedule for RSGs and other units
- Add water and waste water infrastructure
- Academia Integration
- Support to STO-D, RDECs, and PMs
- Support 13k+ of soldiers training
- Integration with Prime Power School
- Continue on-going assessments (alternate energy, power storage, building efficiency, B-Hut construction)



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Questions